Amendments to the Specification:

Please amend paragraph number 0008 as shown below:

[0008] The present invention overcomes the problems of the prior art by providing in one embodiment a method of removing moisture from a fuel cell system and other ~~automobile~~ system components. The presence of liquid water in a fuel cell stack, for example, is undesirable should the temperature drop below freezing since the fuel cell stack components are subject to degradation and even damage by ice formation and expansion. The method of the invention is advantageously applied to protect any fuel cell component that might be degraded by freezing. Moreover, the utilization of the method of the invention is not only restricted to PEM fuel cells but it may also be used to protect sensitive components of other types of fuel cells such as solid oxide fuel cells. The method of the invention includes measuring the ambient temperature in the vicinity of a fuel cell when a vehicle ignition has been turned off and then flowing a moisture-removing medium such as air through the fuel cell when the ambient temperature drops to a predetermined temperature. The moisture-removing medium is channeled through the fuel cell for a sufficient time to remove a sufficient amount of the water in the fuel cell system as to protect the fuel cell from freezing. The fuel cell stack is comprised of many individual cells that are stacked together electrically in series to achieve a power source with a given voltage and current. It requires, in this implementation, air and hydrogen from an external source to generate electricity. Product water resulting from the combination of oxygen and hydrogen is managed within the fuel cell system by the method of the present invention. It is this product water which is removed by the method of the invention. Liquid coolant is also supplied to the fuel cell stack as needed to maintain an appropriate operating temperature.

Please amend paragraph number 0009 as shown below:

[0009] In yet another embodiment of the present invention, a system for removing moisture from a fuel cell in a vehicle utilizing the methods of the invention is

provided. The system of the invention includes a temperature measuring device that measures the temperature in the vicinity of a fuel cell in a vehicle, a source of a moisture-removing medium, a conduit for transporting the moisture-removing medium to the fuel cell, and a controller that receives temperature data from the temperature measuring device. The temperature controller initiates a medium-flowing event in which moisture-removing medium is forced through the fuel cell and system when the ambient temperature drops below a predetermined temperature. The controller remembers that a [[an]] medium-flowing event has occurred during a given engine shut off period, so that if the vehicle warms up above the predetermined temperature and then subsequently drops below the predetermined temperature, a subsequent medium -flowing event is not initiated until the vehicle goes through another engine turn on and shut down cycle. As set forth above, the temperature measuring device measures the ambient temperature continuously or at successive time intervals while the vehicle is not operational. The predetermined temperature will be the same as set forth above for the methods of the invention.

Please amend paragraph number 0011 as shown below:

[0011] Figure 2 is a schematic of a triggering circuit used in the fuel cell water purging system of the invention; and

Please amend paragraph number 0014 as shown below:

[0014] With reference to Figure 1, a schematic of the system of the invention is provided. The system of the invention is utilized to protect a fuel ~~cell powered~~ cell-powered vehicle from freezing. This system has been evaluated on the Ford Motor Company's C264 fuel cell vehicle ~~and on other~~ confirmation prototypes. System 2 includes measuring the temperature in the vicinity of fuel cell stack 4 via thermostat 6. [[A]] Ballard [[Mark V]] fuel cells have ~~cell has~~ been used in this system. However, the system and methods of the present invention may utilize virtually any type of fuel cell. Additional examples include the Ballard Mark 5 or 7 fuel cells. Thermostat 6 may be substituted with any suitable temperature sensor.

Thermostat 6 is a temperature sensing device that is used to sense the ambient temperature of the fuel cell system or the inline coolant that is supplied to fuel cell stack 4. The output signal from this device is the signal that controls the relay 8. When the temperature drops below a predetermined temperature relay 8 is triggered and sends a signal to vehicle system controller 10 via input 12. Vehicle system controller 10 is the main or master microcontroller present in the vehicle. This controller acts as a master controller that controls the overall vehicular control in this distributed controller architecture. Both thermostat 6 and relay 8 are powered by low voltage power supply 14. Relay 8 is a typical automotive relay that is used to provide control of low voltage power supply 14. When it receives a control signal from thermostat 6, it provides low voltage power to the vehicle system controller, which turns it on. Low voltage power supply 14 is a conventional low-voltage (12V) battery found in present-day vehicles. Upon receiving the signal from relay 8, vehicle system controller 10 sends a signal to a high voltage supply controller 16 via connection 18 which activates high voltage supply 20 to turn on fuel cell air compressor 22 via connection 24 to flow air through fuel stack 4. It should be appreciated that air will also be directed through any fuel cell component that may be damaged by freezing such as deionized water ("DI") lines and associated components. Moreover, if air is not used as the moisture-removing medium air compressor 22 will be replaced with a tank containing the moisture-removing medium. Fuel cell air compressor 22 is a high-speed, microcontroller-based electromechanical device that compresses air entering the fuel cell system to a pressure above ambient to increase operational efficiency of the fuel cell system. Vehicle system controller 10 also communicates with high voltage power supply controller 16 via vehicle multiplex communication network 26 and with fuel cell controller 28. Secondary bus 29 allows communication between fuel cell controller 28 and air compressor 22. High voltage power supply 16 is the high voltage traction battery that provides an alternative source of power to drive the electric drive motor. High voltage power supply controller 16 is a slave microcontroller responsible for control of the high voltage bus. One function is to maintain the correct bus voltage given two high voltage sources: the fuel cell stack and the high voltage battery. Fuel cell controller 28 is microcontroller that is part of the distributed controller architecture in the fuel cell vehicle. In the control hierarchy, it is a slave controller that responds to the master controller, the vehicle system controller 10. The fuel cell controller

provides localized control over the entire fuel cell system, a subsystem of the vehicle. The fuel cell system includes the fuel cell stack and other necessary auxiliary devices that are used to regulate and control air, hydrogen, water, and coolant within the fuel cell system. As an analogy, the fuel cell system is like an internal combustion engine that includes the air intake and manifolding, the fuel delivery system up to the fuel tank, and all associated sensors and actuators. Finally, vehicle electric drive motor 30 is powered by fuel cell stack 4 via bus 32 and by high voltage supply 20 via high voltage bus 34. Vehicle electric drive motor 30 is a tractive motor that drives the wheels of the vehicle. It is powered by fuel cell stack 4 and high voltage power supply 16.

Please amend paragraph number 0016 as shown below:

[0016] In another embodiment of the present invention, a method of removing moisture from a fuel cell stack <u>and system</u> is provided. The presence of ~~humidity~~ <u>liquid water</u> in a fuel cell stack is undesirable should the temperature drop below freezing since the membranes in the fuel cell stack are subject to degradation by ice formation and expansion.

Please amend paragraph number 0020 as shown below:

[0020] For a given vehicle shut down sequence, it is only necessary that the moisture-removing medium be flowed once through the fuel cell. Therefore, in a particularly preferred embodiment of the invention, the occurrence of the step of flowing the moisture-removing medium through the fuel cell sets a flag so that if the vehicle warms up above the predetermined temperature and then subsequently drops below the predetermined temperature <u>the flowing</u> step [[b]] is not repeated until the engine goes through another drive cycle. As used herein, the term "drive cycle" refers to the sequence in which the vehicle is started and then turned off. Therefore, if the temperature measuring device is a thermal switch, the switch can reset itself to enable itself to check again for when the ambient temperature drops below the predetermined temperature when the vehicle is shutdown again by turning the ignition key off (tier one shutdown.) Implementation of this feature of the invention may be performed by

the use of a common thermal switch (such Texas Instruments Klixon 4286) or a temperature sensor. Either method (switch or sensor) may use an electronic hardware circuit such as a one-shot timer circuit or a microprocessor with software to implement the required control logic described above.